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EXAMINER	
KHANNA, MADHU	
ART UNIT	PAPER NUMBER
2151	
MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/754,932	DUONG, CHI	
	Examiner	Art Unit	
	MADHU KHANNA	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 February 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to Amendment filed 02/08/2008 under 37 C.F.R. §1.111, claims 1-5, 8, 10 and 15 have been amended, and claims 1-17 remain pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 5, 8-10, 12 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Susai et al. (US 6,725,272) (referred to as Susai hereafter).

Regarding claim 1, Susai teaches a method of dynamically quiescing an application, said method comprising:

providing a server environment (an interface unit connecting a plurality of servers to the Internet, which is in turn connected to a plurality of clients and on-hold server(s),

column 2 lines 48-51), said server environment operable to send requests (interface unit passes client's request it to the requested server, column 6 lines 25-27) and receive responses (interface unit receives a response from the requested server, column 6 lines 27-29) over a network and comprising a front end (interface unit) operative to execute a front end application for receiving a request (a connection is opened between interface unit and the requesting client, and interface unit receives the client request, column 5 lines 6-9) and a back end (server) operative to perform a task responsive to said request (server processing, column 6 lines 27-29);

evaluating (step 306 of Fig. 3) a back end response time for performing said task by said back-end (requested server) (column 5 lines 23-24);

comparing (step 308 of Fig. 3) the back end response time with a response time threshold value (column 5 lines 50-51);

denying (310 of FIG. 3) processing (e.g. 314 of FIG. 3; in order to successfully route an inbound packet from a client to the intended server, interface unit 202 employs a process known as "network address translation", column 9 lines 41-44) of submitted requests (client request, 302 of FIG. 3) to a front end application (interface unit 202 puts the client on-hold, column 5 line 66) for a period of time (waiting time, column 8 lines 51-57) based on said act of comparing the back end response time with a response time threshold (if the response time is greater than the threshold value, column 5 lines 61-62).

Comment [b1]: Page: 3
Note that it seems that examiner mis-interpreted the claimed limitation, it recites said SERVER environment operable to SEND request AND RECEIVE responses over the network. Meaning that the SERVER send request and the SERVER receives responses, NOT that the CLIENT receives responses, as mapped by examiner. NOTE: This is in the art typically, the sending BY the server the request to a database and receiving a response therefrom. [FIXED-BEATRIZ]

Comment [b2]: Page: 3
Note that it seems that examiner mis-interpreted the claimed limitation, this limitation recites performing task responsive to SAID request, i.e. the request SENT by the server NOT received by the server. Again, this is the art is typically the database to which the server SENT the request. [FIXED-BEATRIZ]

Regarding claim 5, the method of claim 1, further comprising the acts of determining that the period of time has passed (determined whether the client is ready to be taken off on-hold, column 6 lines 18-19) and allowing processing of submitted requests in response to the act of determining that the period of time has passed (if the client is ready to taken off on-hold, then control passes to step 314, column 6 lines 21-22).

Regarding claim 8, he method of claim 1 wherein the value of the response time threshold is predetermined (maximum response time allowed, column 5 lines 50-56).

Regarding claim 9, the method of claim 1 wherein the value of the period of time is predetermined (determines the approximate waiting time, column 8 lines 51-54).

Regarding claim 10, a system for dynamically quiescing an application, comprising:

a computer (900 of Fig. 9) having a processor (904-906 of Fig. 9) (as described by Susai, column 12 lines 10-11), a memory interface (920 of Fig. 9) coupled with said processor, a memory (908 and 910 of Fig. 9) coupled with said processor and said memory interface (as described by Susai: column 12 lines 18-20), a front end interface (client) operable to communicate with a front end in a server environment (the client has the same structure as the typical computer as described by Susai, column 12 lines 43-57), and a back end interface operable to communicate with a back end in the server environment (column 12 lines 43-57);

Comment [b3]: Page: 5
Cite Susai col 12, lines 43-57 with citation which describes that this is a typical computer and that the client has the same structure [FIXED-BEATRIZ]

Comment [b4]: Page: 5
same comment as b9 [FIXED-BEATRIZ]

a first logic stored in said memory and executable by said processor to receive first data (current response time) via said back end interface (requested server), said first data comprising a back end response time (current response time of the requested server is estimated by interface unit by using actual past response times, column 5 lines 23-25);

Comment [b5]: Page: 5
Same comment as b11, it can't be both a web page and response time. [FIXED-BEATRIZ]

a second logic stored in said memory and executable by said processor to receive second data via said memory interface, said second data comprising a back end (server) response time threshold (column 5 lines 50-53);

a third logic stored in said memory and executable by said processor coupled with said first and second logic and operative to compare said first data (current response time) and said second data (threshold value) (column 5 lines 50-51) and generate a result indicating whether the value of the first data (response time) is greater than the value of the second data (threshold value) (column 5 lines 61-62); and

Comment [b6]: Page: 5
Note that this recites "SAID first data" which was mapped to a web page and then mapped to a response time see comments b11 and b12 [FIXED-BEATRIZ]

a fourth logic stored in said memory and executable by said processor coupled with said third logic to send an instruction to deny (put the client on hold, 310 of FIG. 3) processing of submitted requests (translating client request and pass to requested server, 314 of FIG. 3) to an application operating on said front end (interface unit 202) by way of the front end interface based on said result (if the server cannot provide acceptable response time, then interface unit is directed to put its clients on-hold, column 5 lines 59-62).

Comment [b7]: Page: 6
The citation does not make sense, please review the mapping because it seems inconsistent. [FIXED-BEATRIZ]

Regarding claim 12, the system of claim 10 wherein said front end (interface unit) comprises one or more web servers (on-hold servers (representing the world's largest web site) can be physically located within interface unit, column 4 lines 25-29).

Regarding claim 15, this system claim comprises limitation(s) substantially the same as those discussed on claim 1 above, same rationale of rejection is applicable, wherein the method steps further comprise the modules for performing respective function/steps discussed therein, same rational of rejection is applicable.

Claim Rejections - 35 USC § 103

3. Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in the previous office action.

4. Claims 2-4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Susai in view of Togasaki (US 2003/0088672) (referred to as Togasaki hereafter) and in further view of Islam et al. (US 2004/0103194) (referred to as Islam hereafter).

Regarding claim 2, Susai teaches the method of claim 1 wherein the front end comprises a web server (column 4 lines 25-26); however, although Susai teaches that the server stores information that is intended to be accessible over the web (column 1

Comment [b9]: Page 4 Cite Susai col 4, lines 25-26 [FIXED-BEATRIZ]

lines 33-36), Susai does not explicitly disclose that the back end server comprises a database.

Togasaki teaches the back end (back-end server) comprises a database (paragraph [0026])

Comment [b9]: Page: 4 Cite Togasaki par 0026 [FIXED-BEATRIZ]

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to utilize back-end database servers in the system/method of Susai as suggested by Togasaki because one of ordinary skill would recognize that information accessed over the web is obtained from database servers. One would be motivated to combine these teachings because it would result in an improved flow of web requests and processed web transactions by ensuring that there is never an overload of information being accessed from any particular database. However, Susai-Togasaki do not explicitly disclose middleware.

Islam teaches the server environment further comprises middleware (load balancing agent 24) [0046].

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to utilize a load balancing agent in the system/method of Susai as suggested by Islam in order to regulate the interplay between the client requests and the database server. One would be motivated to combine these teachings because doing so would enhance the ability to maintain a reasonable response time for client requests.

Regarding claim 3, Susai teaches the method of claim 2, further comprising the acts of concluding that the back end will be able to provide a response (the estimated current response time is then compared to the threshold value in step 504, column 8 lines 12-25); and transmitting the stored information to the backend after the act of concluding that the back end will be able to provide a response (interface unit 202 then translates the client request and passes it to the requested server, column 6 lines 18-26). However, Susai does not disclose storing information from the user in the middleware.

Islam teaches comprising the acts of storing information from the user in the middleware (the load balancing agent 24 intercepts a client request; the load balancing agent then dispatches each client request, [0048]).

Regarding claim claim 4, Susai teaches the method of claim 3, wherein the front end (interface unit) comprises a plurality of web servers (on-hold servers (representing the world's largest web site) can be physically located within interface unit, column 4 lines 25-29);

Islam teaches the middleware comprises a plurality of application servers (load balancing agent, 24 of FIG. 2); and

Togasaki teaches the back end comprises a plurality of database servers [0026].

5. Claims 6-7, 11, 14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Susai in view of Islam.

Regarding claim 6, Islam teaches the method of claim 1 further comprising the act of increasing a counter when the response time has exceed the threshold response time (determines the number (by maintaining a consecutive count) of blocked requests [0087]); and comparing the counter with a counter threshold value (given threshold value B_T, [0087]).

Comment [b10]: Page: 8
Note that on it's face what does the number of request have to do with increasing the counter of the time response ? This citation appears on numerous subsequent claims, same is applicable. [FIXED-BEATRIZ]

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to utilize a counter for tracking the number of blocked requests and comparing the counter with a threshold in the system/method of Susai as suggested by Islam in order to maintain information regarding how often a server becomes overloaded and fails to respond to requests within a certain time. One would be motivated to combine these teachings because in doing so, a particular server which frequently cannot handle requests can be identified and dealt with.

Regarding claim 7, Islam teaches the method of claim 6, wherein the counter threshold value is predetermined (a given threshold value B_T, which is set by the system administrator, [0087]).

Regarding claim 11, Susai teaches the system of claim 10 further comprising:

a fifth logic stored in said memory (908 and 910 of FIG. 9) and executable by said processor (904 of FIG. 9); however Susai does not disclose being coupled with said third logic to maintain a cumulative value of instances in which the third logic has indicated that the value of the first data is greater than the value of the second data.

Islam teaches being coupled with said third logic to maintain a cumulative value (number of blocked requests, [0087]) of instances in which the third logic has indicated that the value of the first data (back end response time) (A(W), [0079]) is greater than the value of the second data (back end response time threshold) (A_T, [0079]).

Regarding claim 14, Islam teaches the system of claim 10 wherein said middleware (lead balancing agent 24 of FIG. 2) comprises one or more application servers [0046].

Regarding claim 16, this system claim comprises limitation(s) substantially the same as those discussed on claim 11 above, same rationale of rejection is applicable, wherein the system logic further comprise the modules for performing respective function/steps discussed therein, same rational of rejection is applicable.

Regarding claim 17, this system claim comprises substantially the same limitation(s) as discussed on claim 16, same rationale is applicable. Further, limitation(s) taught by Islam include: comprising a means (load balancing agent, [0087]) for maintaining a cumulative value (number of blocked requests, [0087]) of instances in which the back end response time is equal to the backend response time threshold (load balancing agent transmits the client request if the value for A(W) is less than A_T, otherwise the load balancing agent will block requests, [0079]).

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Susai in view of Togasaki.

Regarding claim 13, Susai does not explicitly disclose the back end comprises one or more database servers.

Togasaki teaches wherein said back end (back-end server) comprises one or more database servers [0026].

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to utilize back-end database servers in the system/method of Susai as suggested by Togasaki because one of ordinary skill would recognize that information accessed over the web is obtained from database servers. One would be motivated to combine these teachings because it would result in an improved flow of web requests and processed web transactions by ensuring that there is never an overload of information being accessed from any particular database.

Response to Arguments

7. Regarding claims 1, 10 and 15, it is argued that the applied references do not teach the claimed limitations. Specifically, denying possessing of submitted requests to a front end application for a period of time based on said act of comparing the back end response time with a response time threshold.

In response to the above argument, Applicant's interpretation of the applied references has been carefully reviewed. Susai teaches that "In order to successfully route an inbound packet from a client to the intended server, or to route an outbound packet from a server to a client, interface unit 202 employs a process known as "network address translation." (column 9 lines 41-44). Hence, it is necessary for the interface unit to execute the above mentioned translation of the in-bound packet (submitted client request) in order to process the requests. As an example, Susai discloses "interface unit 202 determines that the GET request is for requested server 701 and that the estimated response time for the requested server 701 is such that client 700 must be put on-hold" (column 10 lines 23-26). Therefore, as a result of comparing the server response time to a threshold, the interface unit puts the client on hold, rather than processing or translating the request and routing it to the requested server. By putting the client on hold, the interface unit is denying to process (translate and route) the request until it is determined that the server is responding at an acceptable response time.

Thus, Susai teaches denying processing of submitted requests.

The broadest reasonable interpretation in light of the specification (see MPEP §2106/2111) has been applied to argued claim limitations, namely, *denying processing of submitted requests"*. Applicant is urged to amend claim language if the claim is not to be interpreted as noted above.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(s).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MADHU KHANNA whose telephone number is (571)270-3629. The examiner can normally be reached on Monday-Thursday 8:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. K./
Examiner, Art Unit 2151

/Salad Abdullahi/

Primary Examiner, Art Unit 2157